

### REMARKS

By this Amendment, claims 1-3, 5, 11, 14 and 20 are amended and claims 9 and 19 are cancelled without prejudice or disclaimer. Support for the amendments to these claims may be found, for example, on page 4, lines 15-35, page 9, lines 3-15, and page 10, lines 25-35, of the specification and in FIG. 1. After entry of this Amendment, claims 1-8, 10-18 and 20 will remain pending in the application. Reconsideration and allowance of the application based on the foregoing amendments and following remarks are respectfully requested.

#### **I. Specification**

In the Office Action, the Examiner indicated that the reference to “camp” on page 10, line 10, should read “clamp.” In response, Applicants have amended the specification to address this typographical oversight and carefully reviewed the entire specification to ensure that any grammatical, idiomatic and spelling errors are corrected.

#### **II. Claim Rejections – 35 U.S.C. §112**

Claims 3 and 5 were rejected under 35 U.S.C. §112, second paragraph. The rejection is respectfully traversed.

With respect to claim 3, the language “unimageable portion of the substrate” recited in claim 3 has been replaced with “a portion of the substrate of a second nominal size that is not imaged during exposure with said lithographic apparatus.” Support for the amendment to claim 3 may be found, for example, on page 10, lines 10-24, of the specification and in FIGS. 3-4. Applicants note that this “portion” refers to the part of the substrate that is not exposed by the projection beam due to the shadow effect caused by the clamp ring. With respect to claim 5, the language “optionally” has been deleted from the claim. It is respectfully submitted that the amendments to claims 3 and 5 obviate the rejection. Accordingly, reconsideration and withdrawal of the rejection of claims 3 and 5 under 35 U.S.C. §112, second paragraph, are respectfully requested.

#### **III. Claim Rejections – 35 U.S.C. §102**

Claims 1-2, 5, 7-8, 11-17 and 20 were rejected under 35 U.S.C. §102(b) based on Reiss (U.S. Pat. No. 6,258,228). The rejection is respectfully traversed.

Claim 1 is patentable over Reiss at least because this claim recites a substrate holder comprising, *inter alia*, a plate member having a first nominal size receivable by a lithographic

apparatus, said plate member having a receiving surface on which a substrate of a second nominal size is disposed, and said plate member being configured to substantially entirely support a lower surface of said substrate, wherein said lithographic apparatus is originally configured to expose substrates having substantially said first nominal size. Reiss does not disclose a substrate holder including at least these features. Therefore, Reiss does not disclose each and every element recited by claim 1 and, as a result, cannot anticipate these claims.

Reiss discloses a clamping ring for clamping a semiconductor wafer to a wafer holder during the deposition of a film. (See col. 2, lines 11-12). Reiss discloses that the clamping ring has an annular surface against which the surface of the wafer rests. (See col. 5, lines 17-19 and FIG. 2). However, Reiss is silent about a clamping ring (identified in the Office Action as the "plate member") that has a receiving surface configured to substantially entirely support a lower surface of a substrate of a second nominal size. Reiss is also silent about a clamping ring receivable in a lithographic apparatus that is originally configured to expose substrates having substantially the first nominal size. Claims 2, 5, 5, 7-8, 11-13 are patentable by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 14 is patentable over Reiss at least because this claim recites a device manufacturing method comprising, *inter alia*, disposing a substrate on a receiving surface of a plate member, said plate member being configured to substantially entirely support a lower surface of said substrate, clamping the substrate to the plate member, said plate member having a first nominal size larger than a second nominal size of the substrate, wherein said lithographic apparatus is originally configured to expose substrates having substantially said first nominal size. Reiss does not disclose a method including at least these features. As mentioned previously in the discussion related to claim 1, Reiss is silent about a clamping ring having these characteristics. Claims 15-17 and 20 are patentable by virtue of their dependency from claim 14 and for the additional features recited therein.

With respect to the allegation on page 4, lines 1-2, that the methods of claims 11-17 and 20 are inherent teachings of Reiss, it is respectfully noted that the Examiner has provided no basis in fact and/or technical reasoning as to why these teachings necessarily flow from Reiss, as required by MPEP §2112. The Examiner is respectfully requested to provide the required basis in fact and/or technical reasoning or withdraw the rejection.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-2, 5, 7-8, 11-17 and 20 under 35 U.S.C. §102(b) based on Reiss are respectfully requested.

Claims 1, 4-5, and 11-14 were rejected under 35 U.S.C. §102(b) based on Komiya (JP2002151439). The rejection is respectfully traversed.

Claim 1 is patentable over Komiya at least because this claim recites a substrate holder comprising, *inter alia*, a plate member having a first nominal size receivable by a lithographic apparatus, said plate member having a receiving surface on which a substrate of a second nominal size is disposed, and said plate member being configured to substantially entirely support a lower surface of said substrate, wherein said lithographic apparatus is originally configured to expose substrates having substantially said first nominal size. Komiya does not disclose a substrate holder including at least these features. Therefore, Komiya does not disclose each and every element recited by claim 1 and, as a result, cannot anticipate these claims.

Komiya discloses an expanding device including a wafer ring 21 on which a substrate 24 is disposed. (See FIG. 1). Komiya discloses that the wafer ring is disposed on an expanding ring 2, which is in turn disposed on a stage 1 (identified as the "plate member" in the Office Action). Therefore, contrary to claim 1, the substrate 24, in Komiya, is not disposed on the stage 1. Furthermore, in Komiya, the wafer stage 1 is not configured to substantially support an entire lower surface of the substrate, since Komiya discloses that the wafer stage 1 has a ring shape. Claims 1, 4-5 and 11-13 are patentable by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 14 is patentable over Komiya at least because this claim recites a device manufacturing method comprising, *inter alia*, disposing a substrate on a receiving surface of a plate member, said plate member being configured to substantially entirely support a lower surface of said substrate, clamping the substrate to the plate member, said plate member having a first nominal size larger than a second nominal size of the substrate, wherein said lithographic apparatus is originally configured to expose substrates having substantially said first nominal size. Komiya does not disclose a method including at least these features. As mentioned previously in the discussion related to claim 1, Komiya is silent about a wafer stage having these characteristics.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 4-5, and 11-14 under 35 U.S.C. §102(b) based on Komiya are respectfully requested.

#### **IV. Claim Rejections – 35 U.S.C. §103**

Claim 4 was rejected under 35 U.S.C. §103(a) based on Reiss in view of Malhi (U.S. Pat. No. 5,441,991). The rejection is respectfully traversed.

Claim 4 depends from claim 1 and is, therefore, patentable over Reiss for at least the same reasons set forth above related to claim 1.

It is respectfully submitted that Malhi fails to overcome the deficiencies of Reiss. Malhi was merely cited in the Office Action to teach that the wafer is a silicon wafer. Malhi does not disclose a substrate holder, much less, a substrate holder as recited in claim 1. Therefore, even assuming it would have been obvious to combine the teachings of the references, which Applicants do not concede, the combination of Reiss and Malhi would not have resulted in the invention of claim 1.

Accordingly, reconsideration and withdrawal of the rejection of claim 4 under 35 U.S.C. §103(a) based on Reiss in view of Malhi are respectfully requested.

Claims 3 and 6 were rejected under 35 U.S.C. §103(a) based on Reiss. The rejection is respectfully traversed.

Claims 3 and 6 depend from claim 1 and are, therefore, patentable over Reiss for at least the same reasons set forth above related to claim 1.

Accordingly, reconsideration and withdrawal of the rejection of claims 3 and 6 under 35 U.S.C. §103(a) based on Reiss are respectfully requested.

Claims 10 and 18 were rejected under 35 U.S.C. §103(a) based on Reiss in view of Van Schaik *et al.* (EP-1136887A2) ("Van Schaik"). The rejection is respectfully traversed.

Claim 10 is patentable over Reiss at least because this claim recites a substrate holder, comprising a plate member and a clamp wherein the clamp comprises a ring of magnetic material having an inner contour similar to but smaller than the outer contour of the substrate of a second nominal size and a plurality of magnets are fixed to the plate member. Reiss is silent about a substrate holder including these features.

It is respectfully submitted that Van Schaik does not overcome this deficiency. Van Schaik discloses a substrate holder having a slidable clamping mechanism 30. Van Schaik is silent, however, about a ring of magnetic material having an inner contour similar to but smaller than the outer contour of the substrate of a second nominal size and a plurality of magnets are fixed to the plate member. Therefore, even if it would have been obvious to combine the teachings of the references, which Applicants do not concede, the combination of Reiss and Van Schaik would not have resulted in the invention of claim 10.

Claim 18 is patentable over Reiss at least because this claim recites a device manufacturing method wherein the substrate is clamped to the plate member magnetically. As mentioned previously, Van Schaik fails to teach or suggest this feature. Therefore, even if it would have been obvious to combine the teachings of the references, which Applicants do

not concede, the combination of Reiss and Van Schaik would not have resulted in the invention of claim 18.

Accordingly, reconsideration and withdrawal of the rejection of claims 10 and 18 under 35 U.S.C. §103(a) based on Reiss in view of Van Schaik are respectfully requested.

Claims 9 and 19 were rejected under 35 U.S.C. §103(a) based on Reiss in view of Kassir *et al.* (U.S. 2002/0211813A1). The rejection is respectfully traversed.

Claims 9 and 19 are cancelled without prejudice or disclaimer, thus rendering moot the rejection of the claims 9 and 19.

**V. Conclusion**

All rejections and objections have been addressed. It is respectfully submitted that the present application is now in condition for allowance, and a notice to that effect is earnestly solicited. Should there be any questions or concerns regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP LLP

By: \_\_\_\_\_

  
CHRISTOPHE F. LAIR

Reg. No. 54,248

Tel. No. (703) 905-2097

Fax No. (703) 905-2500

JPD/CFL  
P.O. Box 10500  
McLean, VA 22102  
(703) 905-2000